

What is claimed is:

1. A disk clamp especially adapted for securing one or more disks to a hub of a disk drive, said clamp comprising:

5 an annular body portion having upper and lower surfaces, a peripheral edge, and a central opening for receiving the hub, said central opening being defined by an inner edge including an angled surface;

a peripheral flange integral with said body portion and extending radially outward and downward from said lower surface of said annular body portion, said peripheral flange
10 terminating at said peripheral edge; and

a circumferential groove formed in said upper surface adjacent said peripheral edge.

2. A disk clamp, as claimed in claim 1, further including:

a balance ring placed in said circumferential groove.

3. A disk clamp, as claimed in claim 1, wherein:

said angled surface forms a continuous circumferential chamfer having an upper portion terminating at said upper surface of said annular body portion.

4. A disk clamp, as claimed in claim 2, wherein:

said circumferential groove includes an arcuate-shaped pocket for receiving said balance ring therein.

5. A disk clamp especially adapted for securing one or more disks to a hub of a disk drive, wherein a retaining member is wedged between the clamp and the hub, said disk clamp comprising:

an annular body portion having upper and lower surfaces, a peripheral edge, and a
5 central opening for receiving the hub, said central opening being defined by an inner edge including means for engaging the retaining member to hold the retaining member against the hub;

means extending along said peripheral edge for allowing said annular body portion to deflect in response to an axial load placed on said annular body portion; and

10 a circumferential groove formed in said upper surface adjacent said peripheral edge.

6. A disk clamp, as claimed in claim 5, further including:

a balance ring placed in said circumferential groove.

7. A disk clamp, as claimed in claim 5, wherein:

said means for engaging forms a continuous circumferential chamfer having an upper portion terminating at said upper surface of said annular body portion.

8. A disk clamp, as claimed in claim 6, wherein:

said circumferential groove includes an arcuate-shaped pocket for receiving said balance ring therein.

9. An assembly for securing one or more disks to a hub of a disk drive, said assembly comprising:

a spindle hub having a circumferential groove formed thereon, said groove being defined by at least one sloping surface;

5 a disk clamp mounted over said spindle hub, said disk clamp including a central opening defined by at least one angled surface which lies adjacent said at least one sloping surface when said disk clamp is mounted over said spindle hub, said disk clamp further including a lower surface, an upper surface, a peripheral flange integral with said disk clamp and extending radially outward and downward from said lower surface, and a circumferential
10 groove formed on said upper surface; and

a retaining member inserted in a gap between said at least one sloping surface and said at least one angled surface.

10. An assembly, as claimed in claim 9, further including:

a balance ring mounted in said circumferential groove.

11. An assembly for securing one or more disks to a hub of a disk drive, said assembly comprising:

a spindle hub having a circumferential groove formed thereon, said groove being defined by at least one sloping surface;

5 a disk clamp mounted over said spindle hub, said disk clamp including a central opening defined by at least one angled surface which lies adjacent to said at least one sloping

surface when said disk clamp is mounted over said spindle hub, said disk clamp further having an annular body portion including upper and lower surfaces, a peripheral edge, means extending along said peripheral edge for allowing said annular body portion to deflect in response to an axial load placed on said annular body portion, and a circumferential groove formed on said upper surface; and

a retaining member inserted in a gap between said at least one sloping surface and said at least one angled surface.

12. An assembly, as claimed in claim 11, further including:

a balance ring mounted in said circumferential groove.

13. A method of securing one or more data disks to a hub of a disk drive, said method comprising the steps of:

providing a disk clamp having a lower peripheral flange, and a central opening defined by an inner concentric edge having a first angled surface;

5 providing a spindle hub having a circumferential groove formed thereon, said circumferential groove being defined by at least one sloping surface;

mounting the clamp over the hub so that said angled surface of said clamp lies adjacent said sloping surface of said hub;

applying an axial load to said disk clamp;

10 deflecting said disk clamp in response to said axial load causing said first angled surface to displace away from said sloping surface;

inserting a retaining member between said angled surface and said sloping surface;
and

releasing the axial load resulting in said angled surface moving back toward said
15 sloping surface thereby wedging said retaining member between said angled surface and said
sloping surface.

14. A method, as claimed in claim 13, wherein:
said angled surface and said sloping surface extend substantially parallel to one
another.

15. A method, as claimed in claim 13, wherein:
said angled surface and said sloping surface extend at an angle to one another
between about zero degrees and 15 degrees.

16. A method, as claimed in claim 13, further including the step of:
providing a retaining member of a desired cross sectional area prior to said inserting
step to selectively adjust an amount of force supplied by the disk clamp to secure the one or
more data disks.